



Esplanade™ herbicide is advancing weed control. This total vegetation control product (TVC) is unlike anything else on the market; a pre-emergent herbicide that features a new mode of action, providing effective, long-lasting control. Developed for the industrial vegetation management industry, Esplanade is ideal for use around railway, roadsides, utility rights-of-way and around farm buildings. At Bayer we're all about superior technology and Esplanade is our latest innovation. We stand behind all our products and our customers. We are committed to maximizing value and supporting Science For a Better life.

Active Ingredients:	Indaziflam 19.05% 1,2-Propanediol 8%
Mode of Action:	Inhibition of Cellulose Synthesis
Group:	29
Formulation:	Suspension
Packaging:	Case = 4 X 1L

## **Efficacy**

- Superior broad-spectrum control of over 33 weed species, including annual grasses, broadleaf weeds
- A single application of Esplanade herbicide will control Giant Foxtail, Green Foxtail and Yellow Foxtail.
- Unique mode of action helps manage herbicide resistance on key weeds such as Kochia (Suppression), Russian Thistle, and Pigweed(Suppression)

# **Usage**

- Convenient and easy to use packaging
- Odorless and non-staining to surfaces
- Minimal PPE Requirement as compared to traditional vegetation management herbicides

# Sustainability

- Up to 60 times less active ingredient on the ground compared to some competitive products. Delivers a more sustainable solution for you and your customers
- Applied at low use rate 375 mL/ha and formulated as a 200 g/L suspension concentrate (SC)

## **Superior Value**

 Less post emergent herbicide applications results in reduced labor and fuel costs

# **Long lasting**

• Up to 8 months residual control even under the most difficult conditions on over 33 weed species.

# **Weed Species Controlled**

Black Mustard
Spotted spurge
Medusa Head
Wild Barley
Green Foxtail
Annual sow-thistle
Yellow starthistle
Dog Fennel
\*\* Suppression only

Barynyard grass
St. John's wort
Field Bindweed
Morning Glory
Italian Ryegrass
Lamb's quarters
Bluestem broomsedge
\*\*Prickly lettuce
375mL/Ha Application Rate

Shepherd's purse Common Groundsel Sweet clover Wild oats Large crabgrass Stork's bill Volunteer common rye \*\*Redroot pigweed Wild Mustard Stork's bill White Volunteer common rye Giant Foxtail Yellow Foxtail White sweetclover Cudweed \*\*Kochia

#### **Environmental Fate**

Volatility:	low (Non-volatile in the environment)
Half-life in soil:	9.3 to 71 days
Half-life in water:	13 to 22.5 days
Leaching:	The main ingredient, Indaziflam is moderately mobile and not expected to leach.

Soil biotransformation is expected to be the major route of transformation in the environment, with soil persistence ranging from slightly persistent to moderately persistent, depending on soil type.

## Wildlife Safety Assessment

The active ingredient in Esplanade is designed to affect plant life and does not pose a risk to other wildlife or humans as it can be used safely when used according to the label directions.

The active ingredient in Esplanade does not present a risk to wild mammals, birds, fish or amphibians.

- Non-lethal to terrestrial vertebrates
- Non-lethal to bees, earthworms and parasitoid wasps.

Earthworm	LC50 > 1000mg/kg/2 – Considered Negligible
Bees:	LD50: >100 µg a.i./bee (x 1.12) – Considered Negligible
Birds:	200 mg ai/kg bw/d - Considered Negligible

## **Human Safety Assessment:**

The acute toxicity of the active ingredient found in Esplanade is low via oral, dermal and inhalation routes of exposure. It is non-irritating to the eyes and skin and did not cause an allergic reaction in testing. Testing shows that it is not a carcinogenic.

Acute Oral Toxicity	LD50: > 5,000 mg/kg
Acute Dermal Toxicity	LD50: > 2,000 mg/kg
Acute Inhalation Toxicity	LC50 (rabbit): > 3,625 gL/L Exposure time: 4 hours
Eye Irritation	No eye irritation

#### **Mode of Action**

The active ingredient in Esplanade, Indaziflam, is a cellulose-biosynthesis inhibitor (CBI) and is classified as a Group 29 herbicide. Esplanade is the most power CBI herbicide discovered to date. It works by inhibiting crystalline cellulose deposition in the plan cell wall, affecting cell wall formation, cell elongation and division. Consequently, only actively growing maristematic root and shoot tissues of germinating weeds are affected.

# Resistance Management Recommendations

For resistance management, Esplanade herbicide is a Group 29 herbicide. Any weed population may contain or develop plants naturally resistant to Esplanade herbicide and other Group 29 herbicides. The resistant bio types may dominate the weed population if these herbicides are used repeatedly in the same area. Appropriate resistance-management strategies should be followed





